

Interstate Medical Journal.

VOL. VIII., NO. 2. FEBRUARY, 1901.

Issued Monthly for One Dollar a Year.

EDITORIAL DEPARTMENT.

WARREN B. OUTTEN, M. D.,	-	-	-	EDITOR.
R. B. H. GRADWOHL, M. D.,	-	-	-	ASSOCIATE EDITOR.
OTHO F. BALL, M. D.,	-	-	-	MANAGING EDITOR.

Address all communications, news of medical interest, subscriptions, etc., to the INTERSTATE MEDICAL JOURNAL, CENTURY BUILDING, ST. LOUIS, MO.

MISSOURI GENERAL HOSPITAL.

Health Commissioner Max C. Starkloff has prepared a bill for introduction in the State legislature, providing for the establishment and maintenance, in or near St. Louis, of a general hospital for the care of such of the State sick and destitute as are not properly included or chargeable to the city of St. Louis. In the drafted bill the contemplated institution is named the "Missouri General Hospital." It is to be managed by a board of commissioners, four to be physicians, and five laymen; these commissioners to be appointed by the governor, and selected from the State at large. The board of commissioners to be empowered to appoint a superintendent and a corps of sixteen consulting physicians, as well as assistant physicians; the latter to serve for one year, and to be selected from the graduates of the several medical colleges of the State. A training school for nurses to be established in connection with the hospital, and professors of the medical colleges permitted to give clinical lectures to their students in the institution.

It is provided that any county court may send the indigent sick of that county to the hospital, said county paying to the State the cost of maintaining such persons. It is also provided that non-resident indigent sick may be sent to the general hospital by the sheriff of any county or by the chief of police of the city of St. Louis; such persons being cared for by the State at large.

The value of such a State hospital, and the necessity for its establishment, is apparent to any one acquainted with prevailing conditions. For many years indigent sick, not citizens of the city of St. Louis, have been brought here from all parts of the State, and the burden has been borne without complaint by the municipality of St. Louis. Civil justice, if nothing more, demands the establishment of an institution as described above. It seems strange to us that, while the commonwealth of Missouri carefully looks after its insane, blind, and deaf and dumb, nothing has been done for its destitute sick except in a casual way in county poor-houses, and similar institutions, but feebly equipped for such responsibilities. As stated above, many such patients find their way to the city of St. Louis, and become charges on an already heavily taxed community. Dr. Starkloff is to be complimented for the interest he has taken in this matter; and we hope that the members of the general assembly will take early action in regard to this important measure.

SOMETHING NEW ON GAS-PRODUCING BACTERIA.

The attention of the writer was recently attracted by an article which appeared in the *Muenchener med. Wochenschrift* for December 11, 1900, under the caption, "Die Beziehungen der unbeweglichen Buttersäurebacillen zur Rauschbrandaffection," written by Shattenfroh and Grassberger, of the Hygienische Institut in Vienna. The article deals with the probable relation that exists between the disease known variously as symptomatic anthrax, rag-picker's disease, etc. These investigators have been working with a bacillus which is productive of butyric acid, and is called by them the "granulobacillus saccharobutyricus immobilis liquifaciens." They have reason to doubt the specificity of the bacillus anthracis symptomatici discovered by Feser and Bollinger in 1878, and claim that their bacillus just named is as often found in cases of this disease as is that of Feser and Bollinger; furthermore, that if the bacillus of Feser and Bollinger is found in connection with the disease, symptomatic anthrax in cattle, that it is not capable of producing that disease alone, but that the granulobacillus saccharobutyricus immobilis liquifaciens is also present. In other words, they claim that undue credit has been given to the bacillus anthracis symptomatici as a micro-organic cause of symptomatic anthrax. In proof of their statements they made divers experiments, both with labeled "pure" cultures of the bacillus anthracis symptomatici obtained from State laboratories, and with meat said to have been cut from cattle dead with symptomatic anthrax. In some cases they were unable to kill susceptible animals, such as guinea-pigs, with these so-called pure cultures; and in the case of the tainted meat, they found their butyric acid bacillus alone in some cases, and in admixture with the bacillus of symptomatic anthrax in other cases. Hence, they reason that we should be chary about accepting the bacillus anthracis symptomatici as a cause of rag-picker's disease in man or symptomatic anthrax in cattle.

We mention the above mainly as a kind of introduction to our own views on the article written by Shattenfroh and Grassberger. In the very beginning of their article they take pains to mention the striking similarity which exists between their organism, the butyric acid bacillus, and the "bacillus emphysematis," which they quote as having been discovered first by A. Fraenkel, and later by Lindenthal and Hitschmann. We have had occasion before to refer to this bacillus emphysematis of A. Fraenkel. In the Shattuck lecture delivered this year by William Welch, of Johns Hopkins Hospital, the status of gas-producing bacteria was very well expounded; and in that lecture Welch demonstrated very clearly that the bacillus emphysematis of A. Fraenkel was nothing more nor less than Welch's bacillus *ærogenes capsulatus*, and mentioned the fact that Fraenkel himself has acknowledged it. Furthermore, Welch mentions the tardiness of Lindenthal and Hitschmann in reviewing medical literature of the present day, and scores them rightly, too. Now, here come Messrs. Shattenfroh and Grassberger, of the University of Vienna, with their detailed account of the workings of their butyric acid bacillus, which they say is the same as the bacillus emphysematis of A. Fraenkel. Where does the name of Welch's bacillus *ærogenes capsulatus* appear during the course of this learned discourse on a bacteriologic finding? We have searched through and through for some reference to it, but alas! nothing is left for us to conclude but that in their jealous haste to proclaim something to the scientific world that is not their own these two gentlemen have neglected to read all the literature on gas-producing bacteria. We venture to remark that if they had but perused the Shattuck lecture of Welch with as much zeal and attention as they have followed the investigations of Messrs. A. Fraenkel, Lindenthal and Hitschmann, that they would have had no occasion to relate their experiences with their "granulobacillus saccharobutyricus immobilis liquifaciens." In other words, we mean to say that Welch has carefully laid down the pathologic conditions which his bacillus *ærogenes capsulatus* is capable of provoking, and that the findings made by Shattenfroh and Grassberger can all nicely be explained as having been caused by a mixed infection with the bacillus anthracis symptomati and the bacillus *ærogenes capsulatus*, or as having been caused by the bacillus *ærogenes capsulatus* alone, which, as we know, may give rise to a variety of infections both in man and in cattle.

This is another example of what little attention is paid by European investigators to the work done by scientific medical men in America. In previous writings on this subject we have commented on the injustice of this kind of treatment. We now merely wish to call attention to the erroneous propositions that will fill medical literature if this course be continued in by Continental workers. It is our right to demand that more care should be taken by these men to ascertain all, and not part, of the literature on any given subject. It is our privilege to condemn this method in the severest tones wherever it becomes apparent. And we need not say

that other journalists should follow in our wake. This is a crusade for justice and for the protection of science. There can be no greater barrier than this to stem the tide of this sea of jealousy, ignorance, sublime self-conceit, or whatever you may choose to call it. G.

SOMNAMBULISM.

The state commonly recognized as somnambulism is a most interesting one, and one that has been long clothed in a veil of mystery, so far as any definite knowledge of its etiology is concerned. It has been commonly taken for granted that the so-called "sleep-walkers" or somnambulists were persons who had been given the habit by their progenitors, and that it was nothing more nor less than an interesting (and often dangerous) heirloom which had been handed down through families. It seems now in the light of modern neurologic teaching that somnambulism is a symptom of disease, and that the disease which it may symptomize may be of three kinds, viz.: hysteria, hysterio-epilepsy or epilepsy. It does not surprise us to hear that somnambulism may symptomize hysteria, for we are prepared to hear of anything as being related to hysteria, but it is rather surprising to know that sleep-walking may be characteristic of an approaching epileptic seizure. That it is symbolic of this neurosis has been definitely verified, inasmuch as epileptic attacks often occur in these people while they are on one of their midnight prowls. The attention of the profession may well be called to this etiology, as good results follow on rational treatment—for instance, the bromides. By using the bromides in such cases it may often be possible to dispense with the "iron-bar and lock" method of treating somnambulism which has hitherto been so much in vogue.

WHERE DOES THE ABSORPTION OF IRON TAKE PLACE?

From the very beginning of advance in physiological chemistry, medical men who work along this line have interested themselves with the question of iron absorption in the intestinal canal, and some results of great value have appeared. The point about which most contention has been made is the site of absorption of iron, which is either taken in as food or is administered as medicine. Quincke and Lehrmann positively state that the duodenum is the site of absorption for iron, and that the other parts of the alimentary tract play little if any rôle in ferruginous absorption. The latest work which has been done along this line is that of Cloetta, of Zurich. The article appeared in *Archiv f. exp. Path. u. Pharmacologie*, Bd. XLIV., H. 5 u. 6, S. 363. The work is an attack on the work of Quincke, and denies that the duodenum is the site of absorption for iron. Cloetta worked with mice, whom he kept on iron-free food for two weeks, and then were given 1 to 1.2 mg. of iron daily. The animals were then killed, their intestines hardened in alcohol and imbedded in paraffin and cut. By

treating the sections with Berlin blue he obtained the reaction which showed iron conclusively in the epithelial cells of the duodenum at its beginning.

This finding goes to show that all the knowledge pertaining to this subject has not yet been obtained; also, that we cannot rely on positive statements made on this subject until much more exhaustive work has been done. It is a highly important consideration, and it is to be hoped that everything will be done to clear it up. We can readily see how the therapist will rejoice when this question is settled. It means a great deal to the practitioner.

DISTOMA SPATHULA HEPATIS.

Simmonds, of Hamburg, is one of the few Europeans who has had occasion to see a genuine case of *distomum spathulum hepatis* in man on the continent. As is well known, the disease is rather frequently met with in China and the far East, principally in cattle, but also in man. It is rare, however, in Europe. It is true that in East Prussia we meet with cases of *distomum lanceolatum* in cattle where it is endemic, and it sometimes attacks man when he eats this meat, but *distomum spathulum* is rare. The case which Simmonds had occasion to see was a German sailor who had been in China, and had entered the hospital at Hamburg for treatment of a case of beri-beri, but at the autopsy the worm was found in the liver and also in the blood. Most of the English writers who are conversant with this disease speak of extensive changes brought about by this *distomum* in the liver and gall-bladder, but in Simmonds' case there was not much in a pathologic-anatomic way to observe. The principal change noted was a swelling and proliferation of the mucous membrane lining the bile ducts. Beyond this, the liver was apparently normal. The eggs of the worm were found in the intestinal canal, making it apparent that the disease may be spread by means of the feces of man or animals sick with this disease.

G.

THE STATUS OF CHILDREN PRACTICE.

The woman's century has passed, and we are at the beginning of the era of the child. The last seventy-five years can be considered a forerunner of this era in two ways: in the establishment of many charitable institutions for children only, and in the wonderful progress made in the study of their ailments. The days of castor oil, calomel, paregoric, hoarhound and ipecac have passed for a physician who knows enough of physiology to judge, of pathology to determine, and of love and patience to devote to these little ones.

No reflection, no slur, upon the old doctor for those proceedings; he did what he thought best; and a coming century may smile at our feeble efforts, also. But when we hear a child cough we first examine his chest for a possible bronchitis or broncho-pneumonia; we watch the motion of both sides of the thorax, to be able to exclude pleurisy and an exudate; we

carefully listen to the quality of the cough, examine the child's throat and take the temperature, feel for possible enlarged glands at both sides of the neck, and then prescribe. "Why, doctor, our old family physician just looked at my babies and prescribed for them; it did not take him so long," remarks the venerable grandmother of the little patient; and if you have judgment, do not answer; the argument cannot be refuted. But the mother of to-day knows only too well that your work requires more time, more knowledge, and appreciates your painstaking. Or do you still expect to give a dose of ipecac, regardless if the child has a catarrhal tracheitis or a diphtheritic croup cough?

The writer witnessed the following case: Called at midnight as second physician to a child that had only a hoarse cough in the evening; he found the little sufferer suffocating with a diphtheritic swelling of the larynx, and injected antitoxin; the child recovered in about ten days. The first physician, upon inquiry about his diagnosis of the case, stated: "Oh, just a little cough; does not amount to a rap." Truly, such examples must vanish. Whatever introspection we may have in our mental storehouse of knowledge, let us never overlook where we are short.

The secrets of the artificial feeding of infants are beginning to be unraveled by our perfect knowledge of the constituents of mother's milk and the mode of its digestion, the perfect and honest analysis of the artificial foods and the physiology of their absorption. Mashed potatoes and barley, farina and mush are now relegated to a later stage, when ptyalin and amylase have appeared to convert starches (after the ninth month), and milk in its perfect form, sterile, *but not sterilized*, is given to infants.

The knowledge of the spread of diseases by milk is as new as bacteriology, the unfitness of poor milk as recent as medical chemistry, and the blessing of the diphtheritic antitoxin is more recent than either; and when we pursue the proper course on such lines we will seriously object to the marriage of consumptives, syphilitics, insane, alcoholics and epileptics, lessening the hereditary burden of an innocent newcomer into the world. A system of proper raising will bring a healthful and strong generation of good minds, for there is a healthy mind in a healthy body.

THE RETROGRESSION OF HOMŒOPATHY.

In a recent issue of *The Hahnemannian Monthly*, a contributor discusses the question, "Has Homœopathy Retrograded?" While candidly admitting that homœopaths "are not among the foremost in studying the causes of disease," yet he considers that his is "the only school having a scientific basis for the application of drugs to disease, all other schools being without a clear, reasonable and comprehensive method of procedure." He, however, comes to the conclusion that homœopathy is not progressing, and "that not to progress is to retrograde." The reason assigned for this condition is that homœopaths have attained the use of so many "proven" drugs that they have reached a degree of complacency which deters them

from making new "provings," or "improving old provings." He concludes his article thus: "We have advanced, but we are loitering now; resting on our laurels; waiting for something to turn up."

Poor things! It is sad to think that these members of "the only true school of medicine" have at last reached the end of their rope. In "proving" their completed list of drugs they have ingested every known substance, from diamond dust down to the excreta in a last year's bird's nest; and, if we are to believe them, they have discovered absolute specifics for every disease or symptom that may develop in the human economy. Why should they not "loiter now, resting on their laurels?" What further is there to "turn up?" Absolutely nothing, unless some second Hahnemann shall descend from another planet, bringing with him some substance which, in a millionth dilution, will resurrect the dead and stay the onward march of time.

A serious discussion of the question propounded is hardly possible under present conditions. In order to discuss any subject, it must be one capable of definition; and it is an admitted fact, even amongst members of the cult, that no man can tell what constitutes homœopathy in the present day. The teachings of Hahnemann are universally discredited by intelligent people, and with the acceptance or rejection of these teachings real homœopathy must either stand or fall.

The truth of the matter is that the more intelligent and successful of the practitioners styling themselves homœopaths, are men who treat disease by whatever remedies and methods they can command, reliance being usually placed on ideas derived from the regular school of medicine, notwithstanding the fact that it "has no clear, reasonable and comprehensive method of procedure."

When a system of medicine has reached a point where it admits of no definition, and where its fundamental tenets are discredited even by those who assume its name, it would seem that it has not merely retrograded, but that it is *dead* in fact, if not in name.

THE STATE MEDICAL ASSOCIATION AND THE LEGISLATURE.

One of the leading medical journals of this city has recently made the suggestion—and made it, we believe, in good faith and with the best of intentions—that the coming meeting of the Medical Association of Missouri shall be held at Jefferson City in February instead of May, the object of the change being to influence legislation.

The suggestion, which, we understand from those high in authority, will not be acted upon, is a good one—provided:

1. The association meets as a dignified body of scientists, and transacts business in the same manner as if the legislature were not in session.
2. Those members of the profession who are professional politicians, and whose records will not bear the search-light of investigation, be muzzled.

CHOREA AND ITS TREATMENT.

The treatment of chorea is one which appeals to both the pediatricist and the neurologist. It is brimful of goodness, and sends joy to the heart of the practitioner who has to deal with this disease. In no other nervous disease is treatment with medicaments so satisfactory as in the disease chorea. Intelligent treatment in this disease means cure for the patient and thanks from the parents. The disease has been sadly neglected in the past, and many cases have been allowed to continue, mainly because the medical attendant has been in the habit of regarding this disease rather "untreatable." This should not be, as we know of decided success in its treatment, where it is intelligently carried out.

In first order, children with chorea should be kept from school. There are several reasons for this: First, because the disease becomes worse when children are sent to school, where their surroundings tend to make them more irritable and peevish, and, hence, accentuate the disease. Secondly, it is a well-known fact that the disease is contagious in the sense that one school-child with chorea will infect the whole school-room. A remedy which should be tried first of all in every case is arsenic. It can be given in the form of Fowler's solution or as acid arseniosi. Together with arsenic, the galvanic battery should be utilized. The cathode pole should be applied over the region of the heart, and the anode over the spinal column, using about five or six milliamperes daily. After arsenic we can recommend antipyrin in this affection. It has a splendid effect, and its use should be rigorously persisted in until the benefits that usually come are seen in the given case. Utmost quiet should be enjoined upon these children. They should be put to bed early and should arise late in the morning. Applications of cold have been recommended, usually over the spinal column, although in many cases warm applications will be found more agreeable. Strict attention should be paid to the heart and its working. We know that endocarditis is often seen in this disease. With the following out of such treatment as above outlined, it can be confidently assured that beneficial results will accrue.

Professor Tripler, of liquid air fame, says that a spray of liquid air directed upon pathologic tissue is the safest and best means of operative interference; that a few days following this treatment the abnormal tissue sloughs off, giving the healthy parts a chance to heal, which process proceeds rapidly.

ORIGINAL ARTICLES.

POLYARTHRITIS DEFORMANS IN INFANCY; APROPOS OF A NEW CASE OBSERVED IN A BOY OF FIVE AND A HALF MONTHS.¹

BY DOCTOR MONCORVO, of Rio de Janeiro, Brazil;

Clinical Professor of Diseases of Children in the General Polyclinic at Rio de Janeiro;
Corresponding Member of the Academy of Medicine at Paris.

BOUILLAND affirmed, in 1846, that "age, whatever it may be, does not absolutely preserve against rheumatic arthritis," adding that this affection spares not even infants. Meanwhile his contemporary authors were silent upon the subject of infantile rheumatism. Despite even the scattered publications of some cases of acute rheumatism in young subjects, it was only in 1864 that the thesis of Claisse appeared; that is to say, the first complete work on acute rheumatism in early life. This was followed soon by that of Picot on the same subject. More recently, in 1896, Abrahams affirmed that acute articular rheumatism was more frequent in the newborn than was generally supposed.

Infancy then appeared to be a protection against the form of chronic rheumatism. In the first epoch of life, arthritis deformans was assumed to be unknown. According to Grisolle, this affection was unknown under the sixth year of life. Niemeyer, also, believed that infancy enjoyed an immunity in regard to this morbid condition. This view was shared by Behier and Hardy.

Finally, in 1871, the eminent Professor Jacoud thought the malady in question to be unknown in infancy and adolescence.

A bibliographic research has permitted me to recognize to what an absolute degree this view was held. In 1864, Cornil found at Salpêtrière a patient with chronic rachitic arthritis, dated from his twelfth year. The same year Laborde presented an analogous case to the Société de Biologie, the subject being a boy of four years. In 1865, Bouchut reported two cases: one in a girl and the other in a boy of three. Picot, of Geneva, mentioned in his inaugural thesis a like case in the service of H. Roger, the patient being a boy of seven. Other observations of this nature have been recorded. Barthel has cited a case in a boy of ten. Charcot soon mentioned another in a little girl, at Salpêtrière.

In the *Progres Medical*, 1876, Staicesco published three cases, relating to three girls of four.

In 1897, Dally and Blache reported two cases in boys: one of four and the other of seven.

¹ Written for the INTERSTATE MEDICAL JOURNAL.

In America, L. Smith (1877) gave an interesting history of chronic rachitic polyarthritis observed in a girl of three and a half years.

These thirteen scattered reports remained almost forgotten, when in 1878 I published, in Portuguese, a monograph which was translated into French by M. le Dr. Mauriac, of Bordeaux, and published at Paris. This treated of a case of chronic rachitic rheumatism in a girl of two years, terminating in a complete recovery.¹ It seems that this first complete work on this subject has awakened the attention of pediatricists, who soon brought to publicity in Europe and in America a certain number of cases of arthritis deformans in young subjects.

Such are the cases cited by Vulpian (girl and boy of four); Reymond (boy of fourteen); Laçaze Doré (girl of thirteen); Sene (girl of two); Decroizilles (boy of eight); Sergin (two girls of fourteen); Hensch (girl of thirteen and boy of eight); Wagner (girl); Potain (boy); Pelissé (girl of ten); Grancher (girl of five); L. Guinon (girl of eight); A. Garrod (child of nine and one of ten); Perret (girl of ten); Olinto (girl of four); Diamontberger (girl of ten); Cery (one case); Hanschatter (girl of nine); Jacobi (girl of five); Cheadle (child of five); Sturges (child of eighteen months); Markins (boy of three); W. Osler (girl of eleven); Fox (girl of six and a half); Finley (girl of eleven); Martinez Vargas (boy of eight and a half); and Pietro Porcelli (boy of three months).

This collection of cases proves that, far from being unknown in young subjects, this disease may be even observed in the newborn.

The case of Pietro Porcelli is a striking example, to which I wish to add another, which I have just seen at an epoch nearer yet to birth.

Observation.—Adalbert, five months old, was brought into my service on April 25, 1899. The mother, Portuguese, came to live in Rio about the age of fifteen. One month later she was taken with a lymphangitis of one leg. One year after her arrival she was affected with an arthritis of the interphalangeal articulations of the four last fingers of the left hand. This was followed by periarticular œdema, and by pain which was spontaneous or provoked by the least movement of these joints. The heat of the body was not, however, elevated. These manifestations were improved and even dissipated as a result of applications of the tincture of iodine.

She related that, from the first days of the eighth month of her second pregnancy, her knees became the seat of lively pain so that it was impossible for her to walk, although the knees were not swollen, nor red, nor hot. Eight days after this invasion, the metacarpo-phalangeal and interphalangeal articulations of the right hand became so swollen and so sensitive to the least movement that she was incapacitated from using them.

A fortnight after her accouchement these arthropathic conditions progressively improved to the point that, two months later, they were nearly in good order. I learned, further, that her husband presented, a

¹ Moncorvo: *De rhumatisme nouveau des enfants et de son traitement*. Paris, 1880. O. Doin, Éditeur.

year and a half before his marriage, a vesicular eruption which occupied nearly all the cutaneous surface, followed soon by pains in the bones of almost the entire skeleton, and of which he often complains as yet. His wife avers, in addition, that he was given to the abuse of alcohol for a year. Her delivery was normal, but the child, born at term, is thin and poorly developed. It was nursed at the mother's breasts.

Soon after there were crusts formed upon the hair of the head, snuffles, coryza, rhagades of the nasal openings, and also a vesicular eruption occupied the hypogastrium and the internal surface of the thighs—all of which disappeared at the end of four months. A little after there was, on each side of the neck, a gumma of the dimensions of a hen's egg. This child is puny, with an old expression, weighing hardly four kilogrammes, very poorly muscled, having the skin dry and rough, the hair of the head sparse and covered with thin crusts. The cervical and inguinal glands are swollen. According to the mother, it has had daily fever, and at the time of the first visit its rectal temperature was 38°C . Since two days, vomiting, bilious diarrhœic stools, and swelling of the spleen. It occupied with its mother a little low house situated at the side of a marshy ground, frequently visited by swarms of mosquitoes. But that which particularly attracted my attention was the deformity presented by several fingers of the two hands, which the mother insisted dated from the second month after birth. The following are the points which I have observed: Right hand—At the level of the metacarpo-phalangeal articulation of the thumb was a fusiform nodosity, enveloping the member completely. The skin there was somewhat red, but its temperature was not elevated. Palpation would seem to indicate that this amplification of the joints was due exclusively to the swelling of the soft parts which surrounded them, but this was put beyond doubt by a radiograph, which proved that the epiphyses of the bones of both hands were not involved. The slightest pressure or movement evoked signs of suffering. At the site of the first phalanx of the index and of the little finger was a nodosity like the preceding, the skin, however, being less red. The other articulations of this hand showed abnormal sensibility to the lightest touch. Left hand—Nodosities of the character just described occupied the metacarpo-phalangeal joints of the thumb, and the two first phalanges of the index and of the ring finger. The skin at these points was not sensibly warm, and hardly reddish. As in the other hand, there was pain on slight pressure or movement. The joints of the other fingers offered nothing abnormal except hyperæsthesia. The radiograph excludes the nodosities from the epiphyseal extremities. The fingers affected are maintained in semi-flexion in both hands. The toes remained immune from deformity.

The mother said that these joint deformities commenced in the right hand, the left hand being attacked later. I have twice seen the little patient, who was immediately treated for paludism, which he had on his

admission to my service. The malaria being improved, I decided, some weeks after, to make an examination at his home.

My assistant, Dr. Pietro de Fonseca, charged with this examination, then found the small joints affected more swollen and more sensible than the several other articulations of the two hands.

It was then impossible to attempt the last treatment addressed against the congenital syphilis, of which the stigmata were so apparent, nor yet against the polyarthritis deformans, which had aroused in me such great interest.

In the case just related there was no trouble in recognizing the typical characters of arthritis deformans, having commenced at the end of the second month of life; all of which has an interesting impression in view of the fact that the disease manifested itself at an epoch of life earlier than that of the case of Porcelli, the latter having commenced at the third month.

This affection has received, successively, diverse names—such as rheumatoid arthritis, dry arthritis, gouty arthritis, chronic progressive rheumatism, deforming chronic arthritis, symmetrical polyarthritis deformans, centripetal symmetric polyarthritis deformans.

The geographical distribution of these so-called rheumatic affections is far from being known with precision even to-day.

The confusion which has reigned upon subjects of this nature seems to have checked reports on these questions.

It has everywhere been believed that rheumatism was a rare affection in tropical climates. Meanwhile acute rheumatism was reported by Primer Bey in Egypt, by Webb in the East Indies, while Saint-Vel, Dutroulau, Ruz de Lavison and Chassaniol had regarded as very rare in the Antilles cases of this nature.

From another quarter Malcolmson pointed out the frequency of chronic rheumatism in the Indies, as also had F. Rebatel and G. Tiraut at Tunis. According to Richard, rheumatic affections were rarely observed in French Cochinchina, in Taite, and in the "Iles de la Société."

Brissac declares having seen, at different times, in the Antilles, and in New Caledonia, infants affected with rheumatism, this trouble appearing to him more frequent in these countries than in Europe, by reason of the great susceptibility of the inhabitants to cold.

In my monograph, above quoted, I have indicated that chronic rheumatism was absolutely rare, even in infancy, at Rio de Janeiro; and more recently in lectures upon chorea, I have once more insisted upon this point.¹

Among the number of predisposing causes attending the cases of infantile polyarthritis deformans, which have been quoted, may be mentioned low dwelling places, badly lighted and moist, bad feeding (premature weaning, coarse food and insufficiency of food).

¹ Moncorvo: The Nature and Treatment of Choreia, *Journal de Clinique et de Thérapeutique infantiles*, Paris, 1898.

These etiological factors have more value than has been given to them.

In adding the case just reported to the list already furnished of published cases, there is then a collection of forty-nine cases, which may be subdivided, according to sex, as follows: Boys, 15; girls, 29; sex unknown, 5.

This coincides with Charcot as to the marked predominance of females affected.

In analyzing the matter of age, the table is as follows:

2 months	- - 1 case	5 years	- - - 1 case	10 years	- - - 5 cases
3 "	- - 1 "	6 "	- - - 4 cases	11 "	- - - 2 "
18 "	- - 1 "	6½ "	- - - 1 case	12 "	- - - 1 case
2 years	- - - 3 cases	7 "	- - - 1 "	13 "	- - - 2 cases
3 "	- - - 3 "	8 "	- - - 4 cases	14 "	- - - 5 "
3½ "	- - - 1 case	8½ "	- - - 1 case	Age unknown	- 4 "
4 "	- - - 5 cases	9 "	- - - 3 cases	Total	- - - 49 cases.

If the facts are viewed from the standpoint of the three principal epogues of infancies the picture will be:

From birth to two years—six cases.

From three to seven years—sixteen cases.

From eight to fourteen years—twenty-three cases.

This calls forth the observation of the increase in frequency between the seventh year and the approach of puberty. Charcot called attention to the undeniability of hereditary tendency to rachitic rheumatism, as did also Heberden. I have already quoted that Boemer had three times seen the transmission of this piathesis.

Wolff has also shown that the placenta is the seat of transmission of this disease from the mother to the child. In nine cases out of fifteen he has found the staphylococcus aureus in the organs of the fœtus, the liver being the first affected. This author admits that these micro-organisms may remain latent for years in the body. Hence, there can be no longer any doubt of the influence of heredity in the matter of chronic rheumatism.

Regarding arthritis deformans, even in view of the lack of documents on the subject, one is forced to the same conclusion.

In my first case nothing pointed to heredity, but in the maternal antecedents of my second the condition of the articulations was unmistakable.

The prepondering influence of cold as a causative factor, as maintained by Bean, was put in doubt by the report of Charcot's cases.

Briefly, the value of this etiological idea, as well as the nervous element as an influence, was supplanted by the microbial theory in 1894, Laçaze contending that active rheumatism is generally preceded by an infectious malady, which appears to open the door to the staphylococcus to play an important rôle. H. Meyer, of Basle, supported the same contention. Leyden has indicated the diplococcus as the agent in acute articular rheumatism, and further adds that he has never found the streptococcus.

Maclagan, of London, classes rheumatism among the infectious diseases, and attributes the poison of malaria to a parasite not yet determined.

Finally, more recently, Achalme and Thiroloix claim to have isolated from the blood of rheumatics a bacillus resembling the bacteria of carbuncles, which they have cultivated upon nutritive media.

Animals inoculated with these cultures presented articular conditions similar to those found in rheumatism.

The result of the efforts of these authors was certified by Triboulet, Cozon and Zadoe, in a communication to the "Société Médicale des Hôpitaux."

The first bacteriological investigation published as to chronic rheumatism was in 1893. In this year Max Schüller described a bacillus isolated by him from cases of this nature, in which the microbe was of 2 to 6 m. in breadth, and 75 m. in length, staining readily with carbolized fuchsine, and discolorizing easily at 25° C. in gelatine, in which they developed rapidly.

In 1896 Bannatyne and Wohlman examined the synovial liquid aspirated from twenty-five joints of polyarthritis deformans, and in twenty-four of these they found a microbe of the identical biological characters described, having a length of 2 m. and a breadth of 6 m. Their number varied in harmony with the intensity of each case.

At first sight these might be confounded with the diplococci, but closer study showed a bipolar bacillus, of which the central part was limited by two parallel lines connecting the two cocci in view.

In the five graver cases the examination of the blood around the joints affected revealed three times the bacillus in question, of which the cultures, injected into rats and rabbits, produced articular symptoms like unto those of human polyarthritis.

These authors add that in eighteen cases of pseudo-rheumatism (blennorrhagic) of tubercular synovitis, they have never discovered the bacillus in question.

Several drops of blood removed from around the small joints affected in my little patient showed some rare bacilli and leucocytes, the morphology of which resembled the bipolar bacillus of Bannatyne and Wohlman. Unforeseen circumstances prevented their cultivation and the inoculation of animals.

These researches, once definitely understood, should serve to disassociate polyarthritis deformans from similar affections. Thus, a like condition well established, on the one hand, and the appearance of polyarthritis in the first months of life, on the other hand, leads us naturally to admit the hypothesis of its foetal origin, as claimed by the author of this work.

Our actual knowledge on the subject of the anatomo-pathologic lesions of polyarthritis deformans in the young is yet quite incomplete, the malady having usually a tendency to recovery or to a stationary condition which prolongs it into the other periods of life; as, for example, in the case of

Cornil at Salpêtrière. That which appears beyond doubt are the primitive alterations found in the periarticular tissues, the ligaments and the synovial capsule.

It is only later that the osteophytic deposits are recognized in the joints affected.

Some authors, like Still, affirm that they have never observed inter-articular traces nor osteophytes. Garrod, Plerringham and Bannantyne have claimed a distinct separation between the polyarthritis deformans of infancy and that of adult life, the distinction being that the osseous tissues are spared, at least in the young. In the absence of microscopic examination, recourse may be had to radiology. This has permitted Finley to authenticate in his case the perfect integrity of the epiphyseal extremities at the site of the affected articulations.

In an interesting communication to the congress at Moscow (1897), M. Martinez Vargas, of Barcelona, cited his recourse to the X-rays. In his little patient, affected with polyarthritis deformans, the articular swelling did not extend to the state of hypertrophy of the corresponding bone, which showed nothing abnormal. The clinical characters offer some peculiarities worthy of remark. The course of the trouble may be rapid or slow, but the facts gathered from infantile cases point to a middle course as most common.

In the first place, the general symptoms are the most prominent; the fever follows, and ordinarily is of the remittent type. The articular symptoms then become marked, the swelling, redness and pain being as acute as in articular rheumatism, properly so-called.

In some rare cases, as in my little patient, the large joints are involved from the beginning.

In nearly all cases a symmetrical invasion is noted of a great number of articulations, these articular manifestations presenting the character of fixity.

The affected joints are the seat of pain of variable intensity, whether spontaneous or provoked, communicating itself easily to the neighboring muscles, which become retracted and are seized with spasms and cramps.

The acute or subacute conditions become attenuated, and are followed by articular lesions which have a slow course or remain stationary.

Besides there is an anæmia more or less marked coinciding with the general thinness and atrophy of the muscles of the members involved.

Bannantyne has found an increase in the number of leucocytes, and even a reduction of thirty per cent. to forty per cent. of the hæmoglobin.

In the case which I have just related, I was able to authenticate a sensible diminution of hæmatin, as well as an increase of the number of leucocytes, and the hæmatoscope of Hénocque showed a reduction in hæmoglobin.

According to Bannantyne, these blood changes reveal the action of toxines developed by the bacilli above described.

As a sequel, the joints remain nodulated, their ligaments and the respective muscles become retracted progressively, resulting in immobility, more or less complete, and the members assume a vicious position.

Again, in the graver cases a displacement of the articular surfaces, amounting sometimes to a subluxation, is found.

In some cases, as in my little patient, the synovial fringes undergo a fibrous transformation at the same time that the joints involved are surrounded by bony deposits, which respond to pressure by crepitation characteristic of rupture.

The symmetrical invasion of the joints is one of the characters of the course followed by the affection; this makes a clear distinction from gout. This symmetry extends to the involvement of the small joints.

According to the observations of Fuller, Trastour and Charcot, a certain immunity is enjoyed by the articulations of the thigh and shoulder as to polyarthritis deformans. An exception to this is cited by Pietro Porcelli.

Charcot had long ago pointed out the centripetal course of the lesions, which generally invade first the articulations at the periphery, and progressively reach the large joints. This mode of invasion is ordinarily the rule when the affection assumes a more grave aspect. The radiographic examination has sustained the contention of Still, who claimed a formal distinction between polyarthritis deformans and osteoarthritis.

The general benign character which infantile polyarthritis presents is due probably to this fact, which had formerly escaped clinical exploration.

A happy termination is, in the majority of cases, the rule, although, in some, the arthropathic condition may last into adult, and even to old age. The fixity of the arthropathic manifestations, their symmetrical and progressive invasion, and the circumscribing of the periarticular tissues and synovial fringes sufficiently clears the diagnosis.

As to treatment, iodotherapy and electrotherapy constitute to-day, the same as twenty years ago, the most sure means to combat infantile polyarthritis deformans.

Biliary lithiasis may be treated with some hope of success by persistent administration of sodium salicylate and benzoate, with general hygienic measures. The remedies should be given in thirty to forty-grain doses three times daily, before meals, and treatment should be given in only ten to twenty days of each month. The treatment should extend over a year or more, for it is only by persistence that good results can be hoped for in the medicinal treatment of this troublesome disease.

Gonorrhœal arthritis may be treated locally by an inunction of one part guaiacol with three parts olive oil. A teaspoonful is rubbed into the affected joint three or four times daily.

SUCCESSFUL CATARACT OPERATION ON A PATIENT NINETY YEARS OLD.¹

BY JAMES MOORES BALL, M. D., of St. Louis,

Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons;
Ophthalmologist to St. Joseph's Ophthalmic and Surgical Sanitarium.

THIS paper will have the merit of brevity, if none other. On the last day of last year I was requested by Dr. A. C. Bernays to visit the Lutheran Hospital for the purpose of examining the eyes of Mrs. Catherine Bauer, aged ninety years, who had broken her right femur four weeks previously. I found a well-preserved old lady with apparently unimpaired mental faculties. She was in good health and as contented as any patient could be while undergoing the tedious treatment necessary in such fractures in old people. As regards her eyes, the right showed a mature, the left an immature cataract. Light perception was present, and the conjunctivæ and the ocular tension were normal. Since the local and general conditions were favorable, and knowing that age is not a barrier to success in cataract extractions, I advised removal of the lens of the right eye. I made the extraction with a small iridectomy and large corneal incision, on January 2, 1901, assisted by Dr. J. G. Ehrhardt, and in the presence of Drs. Hinrichs and Scharff. The incision in this case included almost half the corneal circumference, for the reason that I expected the lens to be a large one. (Priestley Smith has shown that the lens continues to grow throughout the life of the individual.) After the delivery the cornea collapsed and the iris presented its pupillary border on a plane considerably posterior to that of its circumference. This, however, did not cause any worry. The eye was dressed with ordinary sterile gauze and bandage. Healing was uneventful, and vision is now equal to counting fingers at two feet without a glass. It is yet too soon to adjust a lens. After the cataract glass is ordered she ought to see fine type. The operation was made under strict asepsis, the patient having been prepared personally by Miss Krauss, the efficient head nurse of the Lutheran Hospital. The preparation included shaving of the eyebrows, thorough scrubbing of the skin, and the application of a bichloride pack twenty hours before the operation.

While this is the oldest patient on whom I have operated, other ophthalmic surgeons have recorded cases of successful cataract extractions on persons still more advanced in years. Thus the late Dr. H. W. Williams, of Boston, operated on four patients between ninety and ninety-five years of age.

3509 Franklin avenue.

¹ Read before the St. Louis Academy of Medical and Surgical Sciences, January 15, 1901.

OBSERVATIONS ON INFLUENZA, WINTER OF 1899-1900, AND THE PRESENT EPIDEMIC.¹

BY ALGERNON S. BARNES, JR., M. D., of St. Louis, Mo.,

Consultant to City Hospital and Visitation Convent.

THE epidemic of influenza, as observed in St. Louis during the winter of 1899-1900, was much more severe in its effect on the respiratory tract than that of the several preceding winters. The conclusions of the writer are based on observation of cases in private practice.

The disease made no distinction as to social rank and was wide-spread, but did not seem to attack either the very young or the aged as generally as others. The nerve prostration after an attack was very severe, and when it did affect the aged many of them never regained their former health. The symptoms were similar in most cases. The persistent frontal headache, tenderness of scalp, severe pain in back of neck, and a low fever resembling typhoid, were the most pronounced. In some cases, during the early part of the disease, there was intense pain in one ear with bulging of drum, paracentesis giving a sero-bloody discharge. The pain was not relieved, and it was often necessary to resort to morphia and hot fomentations over the affected part. This sero-bloody discharge ran its course in about ten days without any pus formation, the hearing gradually increasing to the normal state. The mucous membrane of the nose was dry and congested.

A general complaint was pain in the throat, especially during the act of swallowing; but an examination would reveal little or no inflammation in this region. I ascribe this to rheumatic and neuralgic conditions. The cough was harsh and frequent, and accompanied by the expulsion of a large amount of white, ropy mucus, which underwent the change to yellow and then to a greenish color, gradually becoming normal. Occasionally a patient would complain of great pain in the pit of the stomach and over the abdomen, with diarrhoea, which, however, was not offensive.

The urine was scant, of a dark color and ammoniacal odor. The cervical glands were enlarged, usually on one side only, and were quite painful. The tongue was not furred, but thick, dry and red. One of the characteristics present in all cases was the pronounced odor coming from the skin.

The treatment which gave good success was as follows: A diet of weak tea without milk, broths, milk with white of egg stirred in it, dry toasted bread, and, where there was no delirium, twenty to thirty drops of brandy every two hours.

For the headache and fever, five grains of kryofine every three hours gave the best results. For the throat symptoms, salol and salophen every three hours, in five-grain doses, caused a rapid diminution of the disagree-

¹ Written for the INTERSTATE MEDICAL JOURNAL.

able symptoms in a short time. Calomel in one-tenth grain doses, with powdered chalk two grains, every hour, evacuated the bowels, checking the diarrhoea and relieving the congestion of the alimentary tract. In some cases a flannel cloth wrung out in a quart of hot water, with tablespoonful of spts. turpentine added, relieved the abdominal pain when left on the skin only long enough to redden it. For the cough, a preparation of nascent syrup of phenic acid, in tablespoonful doses to a half glass of water several times a day, gave relief. The urine was cleared in about twelve hours by the patient drinking vichy (Celestins). During convalescence the diet consisted of ice cream, cream, roast beef, beef juices, gelatin and broths. Tonics, as ozomoru, syrup of iodide of iron, arsenic and strychnia (one-fiftieth grain each after meals), were ordered. In cases showing involvement of bronchial tissue, Angier's petroleum emulsion, both alone and in combination, gave excellent results.

As soon as the patient was able to be propped up, he was dressed in his outdoor clothes and placed in a chair by the open window, so as to get sunshine and fresh air.

To sum up the treatment, the most successful was as follows: Treatment of symptoms: rest in bed, skillful dietetics, plenty of fresh air in room, together with frequent warm bathing. The principal remedies employed were: calomel, kryofine, nascent phenic acid, salol, salophen, and vichy water. Quinine was of very small value, giving no relief in the cases in which it was used. But with the most careful management, the prostration lasted for some time and the recovery was slow.

There were few deaths from the uncomplicated disease at time of attack, and there was noted a tendency to relapse. The disease presented the congestive features of all of the organs, with general vaso-motor paralysis. The abdominal, respiratory, nervous and rheumatic type were well recognized, alone or mixed.

The present winter, to date of writing, has been comparatively dry, but with changeable weather; and at the present time and for the past few weeks grippe is epidemic in the same form as the preceding winter, but presenting some new and different symptoms.

The first symptom is general malaise, and, quickly following, a stabbing sensation in the region of the tonsils, with aching bones and frontal headache. The throat symptoms become very acute, and the mucous membrane of pharynx and larynx becomes highly congested and inflamed, with an exudate of thick, tenacious mucus. In some cases complete aphonia is present, with a pinched epiglottis, for several days. There is considerable pain and rawness felt in the region of the vocal cords and trachea, resulting in a constant desire to cough. Cough and hoarseness becomes worse towards evening, and resembles the croup cough of children. This cough becomes more frequent and harsh, and after the second or third day there is a scanty excretion of thick, yellow mucus, which gradually diminishes with return to normal health. In some cases there

is pain in the chest, which, however, is of short duration. The membranes of the nose are congested and angry-looking and feel dry, but after several days the amount of mucus secreted is unusually large. The eyes are suffused and inflamed. Many patients complain of pain in the abdominal muscles, which is quite severe and lasts for several days. The tongue is white, but not furred. The breath is very offensive, but the marked odor from the body noted in the epidemic of the preceding winter is not present. The bowels in most cases are normal, and the urine dark, slight odor, but not scant; the amount of fever is very small and soon disappears. Pains in bones disappear in most cases during the first twenty-four hours; the headache and pain in throat last, however, for several days. The cervical glands are not enlarged; the ear symptoms in some cases are quite severe, but not as serious as last winter.

As in the previous epidemic, the treatment is largely symptomatic. Quinine in small doses, in combination with kryofine, relieves the pains in the throat and bones as well as the headache. The cough is best treated with heroin, in one-twelfth grain doses every three hours, and with ammonia chloride and pilocarpine, the usual cough remedies seeming to have no effect. Local treatment to the affected parts is of great value, and cuts the disagreeable symptoms short.

Altogether, I consider the epidemic of this winter as causing more painful symptoms and more general complications than that of the preceding one.

As to prevention, I would advise patients to remain indoors after dark, eat wholesome, digestible food, and dress properly. Bowels should be kept open and but little liquor used, and plenty of rest and fresh air taken.

S. E. Corner Grand and Franklin avenues.

Epistaxis which cannot be controlled by compression is best treated by thermo-cautery. Cocain should be introduced into the nasal cavity and the bleeding point located, after which the cautery should be applied at a dark red heat and held on the spot until cool, care being taken not to detach the eschar. A five per cent. zinc chloride solution may then be applied on a tampon.

Methylene blue is being used in the treatment of dysentery. A solution of two decigrammes of the substance in a pint of warm water is used as an enema three or four times per day. The enema should be given immediately after a motion of the bowels, and should be retained as long as possible. The remedy acts as an analgesic, antiparasitic and chologogue.

A CASE OF DISLOCATION OF THE HEAD OF THE HUMERUS, WITH FRACTURE AT ITS ANATOMICAL NECK.¹

BY F. E. PREWITT, M. D., of Durango, Colorado.

A CASE was recently reported by Dr. Jepson, of Sioux City, Iowa, in the *Western Medical Review*, under the title, "What Should be Our Treatment of Fractures of the Anatomical Neck of the Humerus Complicated by a Dislocation of the Head," that affords an instructive parallel to one that came to my attention some time ago, and which, according to writers quoted by Dr. Jepson, is the one hundred and twenty-second reported.

My case is as follows: Dr. L. C. Haefeli, who practices medicine at Dolores, Colorado, sixty miles from my office, presented himself for treatment, suffering from what he thought to be either a fracture of the humerus or a dislocation at the shoulder-joint.

He is twenty-seven years of age, weight about one hundred and ten pounds, and he is in an advanced stage of pulmonary tuberculosis. He was driving a team which became unmanageable and ran away, and was thrown from the wagon, falling on his shoulder and left flexed elbow. I saw him about twenty-four hours after the accident, and the following symptoms were found: preternatural mobility, shortening, increased diameter of the shoulder when the arm was extended, the shoulder was flattened and the skin around the shoulder was badly discolored and the muscles bruised and swollen.

The patient not being able to stand a thorough examination without an anæsthetic, and realizing that I had a serious condition to deal with, I called in Dr. C. H. McLean. After the anæsthetic had been administered the following symptoms were easily made out, because of the small amount of muscular and adipose tissue covering the parts: the glenoid cavity was empty, and the head of the bone readily felt outside, crepitation at the fracture was evident.

The loose end of the bone was easily returned to the capsule, and as easily pushed out by slight pressure.

The diagnosis was clearly that of dislocation of the head of the humerus, with fracture through its anatomical neck. The dislocated head of the bone was replaced, the fractured surfaces placed in apposition, and the shoulder and arm to the wrist encased in felt, with the forearm at right angles to the arm, and brought across the chest and suspended in a sling; the whole arm was then securely bound down to the body with a muslin bandage. This dressing remained three days. Seeing it did not maintain the proper position, the patient was sent to the hospital and again chloro-

¹ Read before the St. Louis Academy of Medical and Surgical Sciences.

formed. The head of the bone was replaced in the capsule, the fractured ends brought together and held in position with a plaster of Paris cast around the shoulder and arm to the wrist. Extension was applied; in addition, an axillary pad was used and the arm placed parallel to the body.

The patient was kept in bed from three to four weeks, and the extension kept up. He suffered very little pain after this dressing, and recovered, as he expressed it, "with a perfect result."

The first idea on recommencing was to place the arm at right angles to the body from the shoulder, and maintain it in this position with the plaster dressing and extension; but this proved not to hold the fractured ends so well approximated as the method finally adopted.

Dr. Jepson treated his case by removal of the head of the bone on the second day after the injury, and says: "The recovery was uneventful and the patient was using the arm before the lapse of three weeks. Motion at the shoulder good, and the functions of the arm seemingly not materially disturbed."

With a limited experience in this class of injuries, this being my only case, my opinion must necessarily be taken for what it is worth.

Unless the head of the bone proved irreducible, I would assuredly treat a second case in the same way, and would allow time to elapse to convince me that the head of the bone had not sufficient blood supply to keep it alive before resorting to the more radical means of removing it.

There can certainly be no great damage done by leaving the detached head of the bone in the capsule for several weeks, even if it has to be removed eventually.

Pain in the lower limbs, or the slightest degree of limping in children, should lead to an examination of the hip-joints. Many cases of beginning hip-joint disease may be discovered at a time most opportune for treatment.

Puncture of the abdomen for ascites should always be preceded by emptying of the bladder. This is especially important in old men who may have retention of urine due to hypertrophied prostate.

Monsel's solution, placed under the ingrowing edge of a toe-nail, will tan the inflamed tissue and tend toward a cure. The application should be kept on for a number of days. The nail should be scraped very thin in the middle line.

Typhoid fever urine is infectious, and should be as carefully disposed of as is the feces. Turbidity of the urine is frequently caused by the presence of the typhoid bacilli. This condition usually clears up promptly on administration of urotropin or cystogen.



SCIENTIFIC MISCELLANY

By LAWRENCE IRWELL, M. A., B. C. L.

The Speech of Man and the Apes.—Dr. Chamberlain, in his able book “The Child: a Study in the Evolution of Man” (Contemporary Science Series), gives me credit for pointing out that “the development of man’s particular mode of speech is probably a correlative of the erect position so characteristic” of *homo sapiens*. Although this is my opinion, I cannot believe that I was the originator of such a simple hypothesis. It is not reasonable to suppose that organs anatomically so similar as the vocal organs of man and the anthropoid apes can be functionally very different. But, as none of the latter walks erect easily, their special method of communicating with their kind by sounds may not resemble man’s as closely as superficial observation would lead one to expect.

In considering the problem of speech among the apes, as compared with man, it must never be forgotten that the question does not involve the mental condition of highly civilized human beings; it is merely a question of the mental differences between the highest animals, below man, and the least civilized human beings.

Deaf-mutism—a Symptom, Not a Disease—Unquestionably Hereditary, if the Term is Properly Understood.—When deaf-mutism is mentioned in medical journals, it is usually referred to as a disease. Nevertheless, it is quite evident that it is no more a disease than jaundice or dropsy. Although the writer is not a physician, he has no hesitation in insisting upon the accuracy of this assertion. Deaf-mutism does not imply any single disorder. Just as a cough may be due to phthisis or to bronchitis, so may inability to hear be due to the non-development of some part of the organ of hearing, or to destruction of a part of the body by disease before birth, or to other causes.

It is occasionally stated in medical publications that deaf-mutism is not hereditary, and that deaf-mutes do not, as a rule, beget deaf children. The latter assertion may be correct, but the former is not, if the term “hereditary” is used in a scientific sense. Morel, in his “*Traité des Dégénérescences*,” says: “We do not mean exclusively by heredity the very complaint of the parents transmitted to the children,

with the identical symptoms, both physical and moral, observed in the progenitors. By heredity we understand *the transmission of organic dispositions from parents to children.*" If the transmission of identical symptoms were always necessary to prove heredity, epilepsy might be classed as a non-hereditary disease, for many epileptics have idiot children, and children afflicted with various neuroses, but no epileptics.

A further point of importance is that fully one-half of all cases of deaf-mutism are of an *acquired* character, having been caused by some injury to the auditory apparatus before or shortly after the power of speech had been attained. This form of the disorder is no more hereditary than is blindness produced by an accident.

Nobody who has studied the subject of deaf-mutism can doubt that it is very frequently transmitted. So eminent an authority as Dr. Clouston ("Neuroses of Development") says: "Ordinary deaf-mutism is closely allied to idiocy, and is one of the hereditary neuroses."

The oft-repeated suggestion that the marriage of the congenitally deaf should be prohibited is evidently made in ignorance of the fact that the hearing members of a deaf-mute family transmit the tendency to deafness with as great a probability of actual deafness in a future generation as do the deaf members.

The Causes of Longevity Among the Jews.—A great deal has lately been printed concerning the longevity of the Jews, and although they usually live longer than non-Jews, the statistics usually given must not be accepted without reservation. Mr. Ripley, professor of sociology in the Boston School of Technology, in his "Races of Europe" (Appleton, 1899), says: "Analysis of the causes of mortality (among the Jews) shows an abnormally small proportion of deaths from consumption and pneumonia. . . . This immunity can best be ascribed to the excellent system of meat inspection prescribed by the Mosaic laws." (p. 384.)

As far as I have been able to ascertain, this statement has escaped criticism. The pneumococcus, as all physicians know, is not found in meat, and there is no more connection between pneumonia and the inspection of meat than there is between gout and the wearing of spectacles.

The writer, whose blood is entirely Jewish, is not convinced that the inspection to which Jewish meat is subjected is always satisfactory, though it is in some cities. Moreover, Jews who are not strictly orthodox eat the ordinary butcher's meat; but tuberculosis among them is, nevertheless, quite uncommon. Again, the usual cause of phthisis is atmospheric infection, to which those Jews who work in sweat-shops and unsanitary tenements are always exposed. No amount of meat inspection can explain their comparative immunity to this source of disease. No doubt, the consumption of tuberculous meat may produce a general tuberculosis, which may develop into phthisis; but the milk of tuberculous cows is liable to do exactly the same thing, and systematic bacteriological examination of

milk for Hebrew consumers has never come under my notice. In some cities, among the ultra-orthodox, it may be done during the Passover, which occupies one week of each year.

The truth is that meat inspection, however scientifically carried out, does not save many Jews from tuberculosis pulmonalis, and no satisfactory explanation of their remarkable immunity to "the great white plague" has yet been given. To say that it is "an ethnic trait" throws no light upon the subject. One can assert with certainty, however, that the beneficent process of natural selection has done much for the Jewish people, for it seems to have eliminated those who inherited the tubercular diathesis, and it has apparently left only "the fittest," who are not susceptible to the attacks of the Koch bacillus. But as all other peoples (the Jews are not a race, says Professor Ripley) must have had ancestors who were subjected in like manner to the cosmic process, this explanation has a limited value.

Schools of Biology and the Drink Question.—Omitting extremists, the biologists of to-day may be divided into those who believe in the hereditary nature of such characteristics as are acquired during the lifetime of the individual, and those who assert that no reliable evidence exists that acquired traits are transmitted. It is almost unnecessary to say that the former are known as neo-Lamarckians, the latter as neo-Darwinians. Most embryologists, if not all, are neo-Darwinians, while practically all palæontologists are followers of Lamarck. Zoologists and botanists are divided in their views. Mr. Herbert Spencer, and the late Professor Eimer (of Tübingen), may be regarded as the champions of neo-Lamarckism, while Professor Ray Lankester and Mr. Alfred Russell Wallace—Darwin's celebrated co-worker—are among the foremost neo-Darwinians. The eminent Professor Weismann's opinions are so extreme that he belongs to a school of his own, which insists that acquired characters cannot be, and are never transmitted.

If a man becomes a drunkard at the age of about fifty, do his children born after that period inherit the drinking habit? I think not. Indeed, I deny that acquired narcomania is ever transmitted. Of course, a person inheriting the alcohol diathesis may keep sober until the age of fifty and may then begin to drink. Indulgence in alcohol generally increases the desire for intoxicating drinks. The more a man drinks the more, within certain limits, does he crave for drink. The limits vary very widely. In some men the simple taste of liquor will at once arouse a desire for deep indulgence. These men have the alcoholic diathesis, which is an inborn trait. How it originated we do not know, any more than we know what was the origin of innumerable congenital variations of a physical character, such as supernumerary fingers and toes. But we do know that persons born with the alcoholic diathesis become drunkards, unless controlled by moral or other deterrents. In ordinary men experience of liquor, no mat-

ter how prolonged, generally produces nothing beyond a desire for reasonable indulgence, because they were not born with the drink diathesis, and consequently are not tormented by an incessant craving for whiskey or wine. They are temperate, not because they resist temptation, but because the temptation is absent. Nevertheless, indulgence by the normal individual does sometimes increase the desire for alcohol up to a certain point. This increased capacity for enjoying liquor—a weakened ability to resist temptation—due to indulgence, is an acquired trait; and, therefore, if acquired traits are usually transmitted, the race which has longest used drink ought to be the most disposed to alcoholism. Each generation would inherit its father's capacity to enjoy alcoholic drinks, plus the increment caused by that parent's drinking. It is evident, then, that if there were a sufficient supply of alcohol, the desire would eventually grow uncontrollable, and the race would be exterminated. Upon the other hand, as men differ in the extent to which they crave for liquor; as those who crave most usually drink most; and as alcohol poisons most of those who consume the largest quantities, it follows, if acquired characters are *not* transmitted, that this elimination of the unfittest and survival of the fittest will at last result in a reduced susceptibility to great indulgence in alcoholic beverages, to the disappearance of the alcohol diathesis, and to the evolution of a more temperate race.

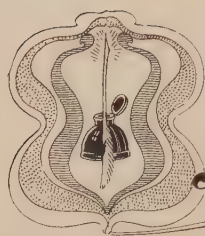
What are the actual facts? That savages, who have never been able to manufacture alcohol, are terribly drunken when they can get liquor; and that the Jews, and the inhabitants of wine countries generally, who have been able to get alcoholic drinks for innumerable years, are the most sober people on earth. *There has been no transmission of an acquired characteristic, but there has been a weeding-out process—a survival of the fittest.*

How to Restore Vitiated Air to Its Normal Condition.—Two French investigators, Messrs. Laborde and Gaubert, have made a report of their experiments in restoring breathed air to its natural state. It is, of course, certain that expired air, besides being deficient in oxygen, is also charged with carbon dioxide, vapor and other impurities. The experimenters in question say that they have discovered a chemical substance which, by simple contact with expired air, will restore to it its lost oxygen, while at the same time it will rob it of all its noxious properties. Three or four kilogrammes of the compound will allow a man to live twenty-four hours in a confined space without any fresh air being administered to him from outside. This discovery, if *bona fide*, will be most valuable in crowded workshops and stores, as well as to divers. In existing diving apparatus, caustic soda has been used to absorb the carbon dioxide, the oxygen being renewed from a compressed store of that gas. The name of Messrs. Laborde and Joubert's chemical substance is awaited with interest.

The Death Penalty Without Pain.—So long as the law of “a life for a life” is accepted by civilized nations, the grim question as to the most humane method of putting that law in force is one which is bound to come up for discussion from time to time. In New York State, the electrical process is resorted to, while in some other States the old method of hanging by the neck has been sufficiently modified to insure the instantaneous death of the culprit. There are foreign countries in which the death penalty is enforced in a far more ghastly manner. It has been reserved for the Japanese to suggest another system, which seems to be effective and at the same time free from the reproach of inhumanity. The condemned person is shut up in a lethal chamber, and by means of powerful pumps the air is rapidly withdrawn from it, and death at once ensues. Experiments upon animals point to the conclusion that this method is quite painless.

A Physician's Difficulty in Treating Female Patients in Afghanistan.—The Ameer of Afghanistan was treated for gout by native “physicians,” who bled him and placed his feet in cold water. Before he would allow an English practitioner, Dr. A. G. Gray, to attend to him, he insisted upon the treatment being tried upon a gouty servant. So successful, however, was Dr. Gray that the Sultana, as well as her husband, desired his services. In the case of the lady, it was difficult to make an accurate diagnosis, as an inexorable custom necessitated the presence of a silk curtain between doctor and patient! The Sultana is said to still prefer the treatment of the native “physicians,” and it is more than certain that Dr. Gray is most anxious that she should not require him to prescribe for her until Afghan customs are changed.

How to Ascertain the Average Expectation of Life.—About thirty-five years ago, a French mathematician (Demoivre) gave the following rule for calculating the age to which the average human being may reasonably expect to live. The rule, however, is not applicable to children under twelve, and it will not work with persons over eighty. Subtract your present age from eighty-six; divide the remainder by two, and the result will give you about the same number of years as the American Table of Mortality used by the life insurance companies. Before reckoning upon living for any time at all, it is well to have a proper examination made by a physician. It is, in addition, a good plan to have one's urine tested for glucose and albumin—perhaps for excess of uric acid—once a year.



Personal Comment

BY
RALGY HUSTED BELL, M.D.



Dr. C. F. Ulrich.—It will interest the readers of the *INTERSTATE* to know that in the near future will appear in these columns a sketch of the life and work of Dr. C. F. Ulrich, of Wheeling, W. Va.

It seems strange that many of Dr. Ulrich's ideas on sanitation and prophylaxis, which he has ably urged for over a quarter of a century, have been generally accepted only within the past few years. But the way of the pioneer is slow, and, like that of the transgressor, is sometimes hard. Nevertheless, it is highly pleasing to his many, *many* friends that the doctor is still hale and hearty—that he has lived long enough to see his theories blossom into practice wherever a great city disfigures our fair land.

A Fixed Idea.—“When not yet twelve years of age, I was knocked down by some unknown ruffian because I said, ‘Poor Aaron Burr! A sadly misunderstood man!’ This happened at the place of Fowler and Wells in New York City. I was standing with, perhaps, a dozen people, looking at some plaster casts of heads. Burr's was among the lot. No sooner had I spoken than a smashing blow in the face felled me to the floor. Who it was that hit me I never knew; he made his escape in the street. But the incident served to impress the image of Burr upon my mind. I have only to close my eyes now to see the plaster cast as plainly as I saw it seventeen or eighteen years ago.

“Even as a child I had taken deep interest in the biography of Aaron Burr and his beautiful Theodosia. My sympathies were always with Burr. Besides, I had met on several occasions a nephew of Alexander Hamilton, and was very unfavorably impressed with him. I remember, he was an old, old man, whose features bore a strong resemblance to the prints and pictures I had seen of his distinguished uncle. His name was Lucian, and he had many marked peculiarities. His opinions, as he expressed them, were dogmatic and hard. For instance, he insisted that the negro was not a human being. He accounted for his origin as the ‘sin of the white man;’ stoutly maintaining that he was half ape, and that the sensitiveness of his shin-bone was owing to the ‘fact that he had but one bone in his leg,’ and, therefore, when it was kicked, ‘it jarred his whole frame.’ A very ingenious argument, which, owing to my lack of anatomical knowledge, I was forced to admit. Mr. Hamilton also stated that negroes shed

their wool once a year, like brutes; and, moreover, that God had given them a distinctive odor which, interpreted, meant: 'Keep thou away, white man.'

"So, when my boyish sympathies and admiration for Aaron Burr were strengthened by a blow, they burst into flame. Ever after I loved him. His sorrows lived again in my own heart; all of his murdered ambitions were mine. It was my hand that slew Hamilton, and I gloated in the deed. It was my heart that broke when Theodosia came not up the watery world, as I watched for her at Battery Park. The spirit of Aaron Burr dwelt within me—and it dominates my life to-day. This idea is fixed, as hypnotists say—I cannot forget it; I cannot dispel it; I cannot even reason it away, do what I will. Now, what would you call it, doctor, the fixed idea of post-hypnotic suggestion? Bah!"

One of the brightest young lawyers of the Georgia bar told me this while we sat together one New Year's eve, in Atlanta.

A Modern Philosopher.—The medical profession has given the world many great names—names that will live a long time, as history goes. Many of our strongest thinkers have been doctors—at least in title. The greatest of these—away and beyond all others—was Charles Darwin. But I would concern myself now of our own more recent times.

Dr. William Colby Cooper has come to be one of the most-talked-of physicians in America. I do not mean by this that he is vacuously hailed by the mob. But by the thinking element of the profession he is widely discussed, and his views on medicine are gaining favor day by day.

Dr. Cooper has written much that is good on literary and other subjects. But some of his best work has been done recently on medical philosophy. His series of articles in the *Medical World* on "Therapeutic Philosophy and Hypermedication" attracted wide attention, and excerpts from that work have been translated into several languages and published in foreign journals with flattering comment. He has ably combated the foolishness of giving iron in anæmia, the tissue-feeding, and other humbugs. He has shown the fallacy of hypermedication and its positive harm. He has done more, perhaps, than any other American doctor to break down empiricism and encourage self-reliant investigation and independent thought among his brothers. It was he who first gave force and life to the "shock theory" of medicine; a theory destined to be accepted by doctors on the same terms that the "wave theory" is accepted by physicists.

His axioms have never been surpassed by any medical writer. In a few words he gives more wisdom than is found in some libraries. He says:

"There are a number of axioms underlying therapeutics which are as inflexibly true as those fundamental to mathematics. Thus,

- 1.—*No morbid effect can be dissipated except by a removal of its cause.*
- 2.—*What will make, or tend to make, a well man sick will make a sick man sicker.*
- 3.—*Medicine is medicine, food is food.*

4.—Each drug has a specific affinity (kindly or not) for a particular nerve center.

5.—A drug, to be remedial, must not, at least in the long run, oppose natural reparative effort.

6.—A drug's capacity for doing good, when indicated, is invariably less than its capacity for doing harm when not indicated.

7.—A drug is double-edged, so that however much it may cut in the right direction, it will cut some in the wrong direction.

8.—There is no such thing as a drug tonic—drugs are heterogeneous to the animal organism.

9.—Hygiene is the big brother of drugs, physiology being included in this branch."

"Some Medical Philosophy" is Dr. Cooper's late prize paper in the literary contest of *Merck's Archives*. In the whole history of American writers on medical topics, I know of no article of equal length that contains so much of genuine common sense, that shows so much reflection, or that suggests clearer scientific knowledge. And long years hence, when the dust of Dr. William Colby Cooper shall nourish the rose, and mingle its light with the stars of Lyra, his name shall stand with those of the philosophers who built wisely and well.

"American Medicine." We are in receipt of an advance proof of *American Medicine*, the title chosen for the new medical weekly to be edited by Dr. George M. Gould and a staff of able assistants. To one who has done so much to raise the standard of medical journalism, we can do no less than wish Dr. Gould and *American Medicine* unqualified success.



A Clinical Treatise on Fractures. By WILLIAM BARTON HOPKINS, M. D., Surgeon to the Pennsylvania Hospital. Cloth, 268 pages. Price, \$4.00. J. B. Lippincott Co. 1900.

This book consists of a series of lectures delivered by the author in the Pennsylvania Hospital, so arranged and classified as to form a complete treatise on the subject of fractures. The work is liberally illustrated by skiagraphs. Special stress is laid on diagnosis of fractures, and the best methods of treatment are clearly explained.

Medical Diseases of Infancy and Childhood. By DAWSON WILLIAMS, M. D., Fellow of the Royal College of London, and University College, London; Physician to East Indian Hospital for Children. Second edition, revised, with additions by FRANK S. CHURCHILL, M. D., Chicago, Instructor in Diseases of Children, Rush Medical College. Philadelphia: Lea Brothers & Co. 1900.

This work does not profess to cover the entire field of medical diseases, those diseases common to children and adults being considered only as regards their bearing on the subject of pediatrics. It is exclusively a work on the diseases of children, and as such it is practical and complete.

A Manual of Syphilis and Venereal Diseases. By JAMES NEVINS HYDE, A. M., M. D., and FRANK HUGH MONTGOMERY, M. D. Second edition, revised and enlarged, with 58 illustrations in the text and 19 full-page plates. W. B. Saunders & Co., Philadelphia, Pa. Lewis S. Matthews & Co., 714 Pine street, St. Louis.

The present edition of this work has received most careful revision, many departments being entirely rewritten and much new material added. Many new illustrations and 19 full-page lithographic plates are presented. The value of the original edition is much enhanced and improved in this volume, and our readers will be well pleased with the result.

Diseases of the Heart; Their Diagnosis and Treatment. By ALBERT ABRAMS, A. M., M. D., San Francisco, Consulting Physician for Diseases of the Chest, Mt. Zion Hospital and the French Hospital. Illustrated. Pages, 172. Price, \$1.00-net.

This book discusses the subject of diseases of the heart from a practical aspect. Researches in methods of diagnosis are recorded, and the latest and most practical methods of treatment given in detail.

It is a valuable work, being the only book on this subject in a condensed form.

Urinary Diagnosis and Treatment. By J. W. WAINWRIGHT, M. D., Member of the American Medical Association, New York State Medical Association, New York County Medical Association, etc. Illustrated with numerous engravings and colored plates. Pages, 140. Price, \$1.00 net.

Among the subjects discussed are the following: Composition and Physical Character of the Urine; Normal Constituents of Urine; Abnormal Constituents; the Microscope and Microscopical Technique; Qualitative Analysis of Urinary Calculi; Bright's Disease, Diabetes, Gout, and other Conditions and their Treatment; Favorite Prescriptions, etc.

For its size, this book offers the most complete manual on the market.

A Manual of Surgical Treatment. By W. WATSON CHEYNE, M.B., F. R. C. S., F. R. S., Professor of Surgery in King's College, London; Surgeon to King's College Hospital, etc., and F. F. BURGHARD, M. D. and M. S. (Lond.), F. R. C. S., Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital, etc. In seven imperial octavo volumes, with illustrations. Volume IV., 383 pages, with 138 illustrations. Cloth, \$3.75 net. Lea Brothers & Co., Philadelphia and New York. 1900.

The preceding volumes of this excellent work have been reviewed in previous issues, when the general scope of the subject as handled was commented on.

The fourth volume bears the same relative excellence as Vols. I., II. and III. Summing it all up, it is the best work on the subject ever written.

Stringtown on the Pike. A Tale of Northernmost Kentucky. By JOHN URI LLOYD, author of "Etidorhpa." With illustrations. New York: Dodd, Mead & Co. 1900.

This little volume contains much of special interest to physicians. A qualified critic refers to it as not only the strongest, but best balanced historical novel of the century. Physicians will be attracted by the vein of mysticism that runs through the entire story.

MEDICAL TREATMENT.

The Management of Scarlet Fever.—In the management of scarlet fever, consideration has to be given to the fever itself, to the throat, the eruption, and the complications arising during the course of the disease, depending upon the invasion of streptococci, the absorption of toxins, and the development of nephritis. The first symptoms the physician has to combat are those of the throat. The usual pain and swelling, as well as the exudate, are alarming to the family and patient, as well as to the physician, and should receive as much attention as a diphtheritic throat. Above all, each case should be examined for the bacillus diphtheria. As treatment, large irrigations of warm water containing a small amount of carbolic acid or listerine should be made with the fountain syringe; older children should be made to gargle a saturated solution of chlorate of potash, a 1-500 potass. permanganate or peroxide of hydrogen diluted 1-4. Around the neck and throat applications of either ice or hot flannel should be made.

If pain in the ears accompanies the sore throat, hot applications should be made to them. Ordinarily the first throat symptoms do not lead to suppuration of the middle ear. Internally, a mixture of one-fiftieth grain corrosive sublimate in teaspoonful of the essence of pepsin makes a grateful medication. Locally, it is best to use only the mildest applications, if anything is necessary besides the irrigations. In cases where local treatment seems indicated, the use of the ordinary nasal spray with a weak solution of bichloride of mercury, the insufflation of sulphur lotion or powdered calomel, or, in extreme cases, the painting of the fauces with an aqueous solution of tincture of iodine, has proved successful. If the diphtheria bacilli are found, the antitoxin must be administered immediately.

The fever should only be treated if excessive; a temperature not going higher than 102.5° needs no further attention than a sponging with tepid water several times a day. If the temperature goes above 102.5° , or if there are severe nervous symptoms, the sponging should be used more vigorously and more frequently—even as often as every three hours. Of the antipyretics, phenacetin, protected by caffeine or strychnia, acts favorably and safe, and can be given every two or three hours, in doses ranging from one to three grains for the first ten years of life.

The eruption calls for hardly any treatment. The less grease is applied to the skin, and the more active the skin is kept, the better we counteract the effects of the toxins on the kidneys. The patient must be kept warm. A flannel union suit accomplishes this, and also acts as a protector against the dispersion of the desquamation. The room in which the patient lies should be kept at a temperature of 76° to 80° . If itching is severe, the skin should be rubbed with alcohol or oil of eucalyptus after each sponging. When desquamation takes place, the

patient should receive a hot bath daily, be rubbed vigorously, and have his underwear changed daily.

Of complications, the most dangerous are secondary infection with abscesses and nephritis. The minor complications, such as diarrhoea, a swollen spleen and gastric irritation, are due to absorption of toxines, and yield to a thorough purge of castor oil or Epsom salts.

The secondary infections are dangerous, depending upon the organ affected, the number of foci, and the rapidity of destruction. Little more need to be said about the secondary throat infections. These must be treated as the first, only more vigorously and with more regard for the more serious results. Adenitis is a frequent concomitant of the secondary sore throat, and must be closely watched for abscess-formation. Of great importance is the early evacuation of an abscess pointing in the throat or located in the tonsils. Next in frequency of infection are the joints. These must be immobilized at the first complaint of pain, and incised and irrigated as soon as pus develops. Endocarditis, pericarditis, and abscess of the liver are to be watched for in all cases in which the temperature does not promptly recede to normal.

Scarlatinal Nephritis.—Every case of scarlet fever should be handled as if the patient had a severe glomerulo nephritis from the beginning. The whole dietetic and medicinal management of scarlet fever should have as its main aim and object the integrity of the patient's kidneys.

The diet should be an absolute milk and water diet for the first twelve days; for the following eighteen days, a simple farinaceous diet, to the exclusion of all nitrogenous food, of which, of course, eggs, meats and broth head the list. The atmosphere in which the patient moves, his clothing and bed should be arranged to promote excessive action of the skin. The state of the digestive tract must be kept in as free a condition as is possible, and liquid, copious action of the bowels favored. All excretory action possible should be removed from the kidneys and thrown on the skin and bowels. Under such conditions we can fairly hope to limit the occurrence of nephritis; or, if it occurs, as it frequently will, in spite of our best efforts, counteract its dangers and change a frequently fatal disease into a simpler condition. The danger of nephritis begins with the tenth to the twelfth day. If at this time there is an evidence of albumen, the patient should be purged, and should receive a hot pack twice a day and kept in perspiration an hour each time; if suppression of urine occurs, the potassium citrate in thirty grains every two hours, or diuretin, ten grains every three hours, should be administered. Large doses of Epsom salts per os or enema, preferably the latter, should be given, and a dilatation of the blood vessels encouraged by the administration of nitroglycerin, one drop every hour, or pilocarpine hydrochloras one-eighth grain every four hours.

Treatment of Acute Articular Rheumatism.—Acute articular rheumatism is, fortunately, one of the diseases for which we possess a specific remedy. Sodium salicylate, salicylic acid, or the oil of wintergreen, act as favorably in acute articular rheumatism as does quinia in malaria. There is a dread, though, of the use of these drugs, which limits their use as well as their beneficent results. Acute articular rheumatism, when seen early, is very amenable to the salicylate treatment; and by cutting an attack short, we limit the dire results the disease achieves in the vascular system. The reason of a good many prolonged attacks of rheumatism can be found in the administration of doses entirely too small to influence the pathogenetic factor of the malady. In order to reach the desired result with sodium salicylate, we must stop short of no smaller doses daily than such as will produce thorough salicylism. Begin with a daily dose of fifteen grams, or one-half ounce, for a man weighing one hundred and fifty pounds, divided in three hourly doses, or thirty grains every three hours, the first day. On the second day the dose is cut down to one-half, and again, on the third day, by one-half. If the patient's temperature falls to subnormal, the drug is discontinued for one day, and strychnia administered on the following day. Seven grains every three hours are again administered for two days. Occasionally we meet cases which respond badly to the salicylates. In these we have to rely on the alkaline treatment, and should administer large doses of soda bicarbonate, potassium citrate, and lithium citrate. But no case of articular rheumatism should be allowed to go on without at least a fair trial of the specific treatment.

Treatment of Influenza in the Adult.—Opium and all measures that depress the circulation should be avoided. When the infection is carefully treated, it should leave no trace on the healthy organism. Our anxieties are awakened when we deal with epidemic influenza in alcoholics, diabetics or in persons afflicted with cardiac or arterial diseases. With the avoidance of depressing agents and observance of antiseptic treatment, our results should be uniformly good in a very large percentage of patients. The use of salophen in ten-grain doses is to be recommended. The persistent use of quinine and the hot baths, with mild anodynes, in the early stages, will modify the disease and tend to abort the attack.

Gonorrhœal Rheumatism.—If the prospects of treatment of acute articular rheumatism are poor, gonorrhœal rheumatism is certainly to be classed amongst the most hopeless of the rheumatic affections. Gonorrhœal rheumatism is as painful, as dangerous, as its cousin-german, and has the distinction of affecting joints otherwise not attacked by rheumatism, such as the temporo-proxillary and sterno-clavicular, which, by their limited space, cause more excruciating pain, and, as in the case of the jaw, immobilization being impossible, make the treatment of these

cases quite a problem. As the pathogenesis of gonorrhœal rheumatism is still dark, we have to give due credit to all possible conditions for the production of the ailment, and amongst these to bear in mind that a patient developing gonorrhœal rheumatism early in the course of his gonorrhœa, may have become afflicted thus owing to the particular mode of treatment pursued. The instrumentation of the urethra leads to the development of urethral fever, muscular pain and joint pain; and, reasoning on analogous grounds, we cannot help but suspect that irrigations and injections may, under certain conditions, produce the results commonly classed as gonorrhœal rheumatism.

Yet, on the other hand, as long as the gonorrhœal discharge persists, the patient is liable to the attack of his joints, and the cure of the rheumatism is paramount with the cure of the gonorrhœa; this certainly seems a riddle the solution of which seems far distant. A rational way out of the difficulty is to suspend local treatment of the urethra and substitute a general systemic treatment. The patient should keep to his bed, or at least to his room, should be strictly dieted, and receive as treatment only diuretics and balsamics. Little or nothing can be done for the rheumatism itself. Large doses of salol or salicylate of sodium have relieved some patients, while they have seemed absolutely inert in others. The painting with iodine seems to aggravate most cases, while the application of forty per cent. ichthyol has given but indifferent results. For the pain, immobilization, as far as possible, and full doses of morphia must be resorted to. Hot bichloride packs have acted very favorably in a number of cases, while ice bags placed near the affected joint have relieved others, although a smaller number. Lately the inunctions with mercurial ointment have proved successful in aborting the attack and relieving the pain. The ointment is either rubbed into the affected joint or applied in a form of cataplasm.

This method has also proven itself of great value in pleurisy of gonorrhœal origin. The internal medication of the later stages should consist of urinary antiseptics, antiseptics and absorbents. In the first class cystogen and urotropin have proven of good effect. As a general antiseptic, the bichloride of mercury heads the list, and has seemed to relieve many cases in which it has been administered. It is either given in gr. one-fiftieth every two hours in the essence of pepsin, or in gr. one-twelfth, t. i. d. As absorbent, the iodide of potash plays the role it maintains in all exudative diseases, and gives sufficiently good results in ten-grain doses. Only if a luetic history is obtained will it be necessary to increase the dose to heroic heights. A large percentage of gonorrhœal joints develop pus; these cases must be relieved promptly by incision, irrigation and immobilization.

With the havoc the gonococcus plays in the urethra and pleura, it is remarkable to notice so few suppurative joint affections due to gonorrhœa.

Unclean Mouths.—(By M. H. Fletcher, M. D., Cincinnati, Ohio.)—Miller has studied over one hundred species of bacteria which he has found in the mouth. He says: "Dental decay is a chemico-parasitical process." He has shown that all forms of dental caries are but expressions of bacterial invasion of the solid structure of the teeth, and that such invasions may extend far beyond the confines of the teeth alone, and produce possibly fatal mischief in distant parts.

Roswell Park says: "Aside from dental caries, a widely open port (to bacteria) is often afforded by those ulcerations around the margins of the gums which are produced by the accumulations of tartar." He further says: "Disease of the antrum of Highmore, and many other local disturbances, are frequently caused by mouth bacteria. * * * One of the most virulent of all the common inhabitants of the mouth is the pneumococcus of Frankel, which, getting into the general circulation through the tonsils and other possible ports of entry about the mouth, cause serious septic and inflammatory disturbances in widely distant regions."

The dorsum of the tongue, with its fissures, glands and spinous processes, affords lodgment for bits of food, broken-down epithelium, mucus, etc. These are all perfect pabulum for bacteria, the moisture and heat of the tongue adding all that is necessary to make the tongue a most perfect breeding-ground for bacteria. The foregoing leads us, also, to consider what part may be assigned to the mouth as a breeding-place or starting-point for infection of the digestive tract.

The observations of thousands of physicians sufficiently prove the occurrence of abnormal fermentive processes in the stomach, and no one can deny that such processes may occur in the stomach where functions are otherwise normal as well as in diseased ones.

Miller says: "There can be no question but that microbes are carried from the mouth into the stomach every time food is taken. The view formerly held, that the swallowed germs perished in the stomach, is entirely erroneous, as I myself have shown, and as has since been corroborated by MacFaydan, Sucksdorf and others. * * * From a neglected mouth, such as repeatedly comes under the observation of dentists, enormous quantities of bacteria must reach the intestinal tract, in spite of the sterilization of food. In a very unclean mouth, examined for this purpose, I estimated (by culture methods) the number of cultivatable bacteria at 1,140,000,000. Many of them were, doubtless, carried to the stomach during every meal, to be replaced by others developed between meals and over night. * * * Von Koczorowski proves clearly that the micro-organisms in an unclean mouth, quite independently of those introduced with the food and drink, suffice to produce intense fermentive processes, chronic dyspepsia," etc.

Numerous investigators have written on the buccal secretions as carriers of toxic substances, and bacteria as excitants of disease, to which the reader is referred.

Your own observations, doubtless, corroborate what these investigators say regarding the dangers from mouth bacteria. But how to reduce these dangers is the question at issue. To keep the mouth absolutely free from disease germs is too optimistic a view for us to entertain.

It is apparent, however, that four ways are open for greatly reducing their number:

First.—By hygienic means to secure the best possible development of the teeth, glands of the digestive tract, and the digestive tract itself.

Second.—By keeping the teeth intact, preventing accumulations about them, and by repeated, thorough and systemic cleansing of the oral cavity and all it contains.

Third.—By proper and intelligent use of antiseptics to destroy bacteria, or at least to limit their number and activity.

Fourth.—By prohibiting or limiting the consumption of such foods as are known to greatly foster the growth and development of fermentive and putrefactive bacteria.

Lactic acid, the greatest destroyer of the teeth, is formed in the mouth most largely by the action of bacteria upon cooked starches, next by their action upon sweets. The fermentation of carbohydrates results largely in the production of acids. These, with all acids taken in the mouth, assist in the destruction of the teeth, each cavity in them forming an un-cleansable incubator for all varieties of bacteria. According to Miller, albuminous fermentation, or putrefaction, results most largely in alkaline products, but the acids predominate and destroy the alkalies.

We cannot banish carbohydrates from our foods, nor can we largely control the development of the digestive tract and teeth to the degree of immunity found in wild animals in their native state; but we can reduce the sweets and pastry to a minimum, thus reducing the tendency to decayed teeth and fermentive indigestion from these sources.

The most practical and common-sense procedure has been mentioned, namely: have all the cavities in the teeth filled before they become large; then the teeth are cleansable on every surface. Cavities can only be made aseptic by being perfectly filled with a properly selected stopping material.

Next, prevent accumulations about the teeth by the use of a stiff serrated tooth brush and a good coarse powder.

Follow this with an alkaline antiseptic, preferably one soluble in the saliva. If such an ingredient could be incorporated with the tooth powder, all the better. An alkali is essential, because the mucus of the saliva is only soluble in alkaline fluids; so that if the mouth, tongue, and teeth are to be perfectly cleaned, it must be done with an alkali of some kind. This should be as strong as the mucous membrane will permit of, when used frequently; for if the mouth is kept clean enough to prevent decayed teeth, diseased gums, and stop a continual supply of bacteria to the alimentary tract, it must have attention at least twice a day, even with the most healthy mouth, and two or three times as often with the majority of persons. This is especially true with invalids, where sordes incline to accumulate with great rapidity, and particularly in the early stages of mycotic stomatitis.

NEW REMEDIES

The Treatment of Specific and Non-Specific Vaginal Catarrhs.—(By Charles W. McIntyre, M. D., New Albany, Indiana.)—I have selected this title because it will enable me to discuss the treatment of vaginal discharges, whether they be of a specific nature or not, and because they present many features of sameness. It is impossible at all times to differentiate the various types of leucorrhea as they are classified in the text-books; and, indeed, a knowledge of such a classification will throw but little light on the treatment of these catarrhs.

In practice I find it only necessary to ascertain whether the vaginal discharge I have under treatment is of a specific nature or not. This information enables me to inform my patient that she may infect any one who approaches her.

The fact that vaginal catarrhs are often found to stubbornly resist treatment is no evidence of the specific nature of the discharges.

Many cases of leucorrhea free from any taint are quite stubborn, and persist for a long period.

Again, vaginal catarrhs are particularly exhausting, and there are few diseases which induce the debility and invalidism which accompanies a protracted attack of leucorrhea or gonorrhea.

We may now pertinently ask what is the best treatment for these vaginal catarrhs?

There are two demands for treatment. The first being to correct any local or constitutional factor of causation that may be present in the case under consideration. If, in other words, our patient has anemia, syphilis or any other constitutional disease, that must receive appropriate treatment.

Any local condition, as laceration of the cervix, must also receive correct treatment.

The *second* demand for treatment consists in the local applications of remedies directly to the inflamed tissues.

There is no doubt that this is by far the most important demand for treatment, because when correct local treatment is employed, the discharges cease and the debility of the patient will naturally be lessened, and improvement in every way will be a natural outcome.

I have long since ceased to employ copaiba and the old specific remedies in the treatment of vaginal catarrhs. These agents are of uncertain value, and they often entail severe gastric irritability, which makes the patient's debility all the more pronounced.

In the treatment of both the specific and non-specific types of vaginal catarrhs, I have in the last three years employed Tyree's antiseptic powder largely, and my results have been all that I could desire. In fact, no remedy has ever brought the quick and satisfactory results which I have at all times obtained from this remedy.

I have one or two teaspoonfuls of Tyree's antiseptic powder dissolved in a pint of water, and this is injected three or four times daily, according to the profuseness of the discharge.

The powder is non-irritating and antiseptic, and the odor, often so unpleasant and compromising in these cases, speedily disappears after its employment is begun.

In gonorrhea or non-specific catarrh this powder is alike efficient,

and brings about a cessation of the discharge more quickly than any agent I have ever employed. I may add that I have never had a failure since I began to employ this agent.

A young married woman came to my office about four months ago, asking for treatment of "whites," which had now persisted two months. The discharge was purulent and most profuse. Examination of the discharge under the microscope confirmed my suspicion that she was suffering from gonorrhea. She was put on Tyree's antiseptic powder (two teaspoonfuls to a pint of water) three times daily. In a week the discharge was greatly diminished, and she used the injections only once or twice daily. At the end of the second week she had scarcely any discharge, and only employed the douche every other day.

I lost sight of this patient, and did not see her until three weeks ago, when she told me she had had no further discharge, and had gotten on well ever since.

I must not forget to add, in this connection, that this patient took no internal treatment whatever.

A lady applied for treatment of leucorrhea which had persisted for a year. The drain on this patient was very great, and she was, as a consequence, very much debilitated.

I put her on Tyree's antiseptic powder, as in the above case. This lady was given no internal treatment, although she had more or less anemia. I believed that when the discharge was discontinued the drain on her system would cease and the untoward symptoms would disappear. This proved to be true, and my patient made a complete recovery, which occupied four weeks. The patient's gain in flesh and her change from a nervous, melancholy person to a bright and cheerful one was quite remarkable.

A lady, forty-two, came to the office for a prescription for some remedy to cure an attack of leucorrhea that was most profuse. She was a widow, and, from all that I could glean from her history, I thought the discharge of a specific character, though I did not make a microscopical examination.

She was put on injections of Tyree's antiseptic powder, and this was continued a week. On coming to the office she declared she felt a great deal better, and that the discharge was most meager. After this she employed the douche only once a day, and made a complete recovery after having employed the treatment, in all, three weeks.

A young woman, aged sixteen and unmarried, had vaginal catarrh which was quite profuse, and it was also quite odorous. She had an inflamed, tender vagina, and was considerably debilitated.

She was put on Tyree's antiseptic powder, three employments daily. After a week she only used it at night. The end of the third week this lady had no further discharge, was greatly improved in strength, was in fine spirits, and now, in four months, has had no further discharge.

Antiphlogistine.—In a previous issue we directed attention to antiphlogistine, giving its formula and therapy. We wish now to point out its value in la grippe. Warmed and spread on the upper part of chest and over the throat, covered with a compress, it will relieve the bronchial symptoms in a very short time. Its value in pneumonia is generally recognized, and it is equally efficacious in grippe-pneumonia.